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CORRESPONDENCE

THE ADAPTABILITY OF THE WHITE MAN TO THE TROPICS IN AUSTRALIA

To the Editor of the *Geographical Review*:

In a recent number of the *Geographical Review* [August, 1920] there appeared a criticism by Mr. Ellsworth Huntington of a paper by us on the above subject. Mr. Huntington takes exception to a section of the paper dealing with mortality tables for Queensland, which section he describes as "peculiarly inadequate and misleading," and to prove this he makes certain categorical statements some of which are demonstrably incorrect.

These statements cannot be allowed to pass unchallenged, and we must ask permission for a small space in your *Review* in which to answer them.

The section in question was quoted almost word for word from a statement made to us by Mr. G. H. Knibbs, Official Statistician to the Australian Commonwealth, and he has kindly looked over this reply and supplied us with the additional information on the whole State of Queensland given below.

As stated in our paper, statistical data for Tropical Australia have not been published separately by the Commonwealth Authorities. Figures were therefore given for the whole State of Queensland, practically all of which lies north of the 29th parallel of south latitude, and of which 25 per cent of the population live north of the Tropic of Capricorn. This population further represents 95 per cent of the whole tropical population of Australia. It might be expected, therefore, that any unhealthiness of Tropical Australia would have left its impress on the vital statistics of Queensland. The figures furnish no evidence of lack of salubrity in those parts.

It was pointed out in the paper that, in the absence of complete data for Tropical Australia, it was not considered practicable to carry the test further.

Mr. Huntington criticizes these figures on the grounds that the "population of Queensland, especially in the tropical parts, differs from that of an ordinary country" in the following respects:

(1) It is composed of settlers who are more energetic than the average of their countrymen, and is largely migratory.

(2) Most of the people are men from 20 to 40 years of age, ages at which the death rate is low, whilst women, old people, and young children are scarce.

(3) Indoor work in factories is rare.

(4) In a scattered population where officials are scarce, a large number of deaths are not recorded even among highly civilized people.

The following facts show that most of these objections are without foundation.

(1) The recorded figures of arrival and departure by land and sea show nothing more than the normal movement due to business and pleasure shown for the rest of Australia.

(2) At the census of 1911 the proportion of men from 20 to 40 was 33.24 per cent of the male population, that for the whole of Australia being 32.76 per cent; this represents 18.08 per cent of the general population of Queensland, the figure for the Commonwealth being 17.01.

Children less than ten years of age formed 22.73 per cent of the population of Queensland, 22.07 for the whole of Australia. Persons over sixty years of age formed 5.6 per cent of the population in Queensland, 6.41 per cent for the Commonwealth.

The masculinity of the state was only 52.1, 51.9 being the figure for the Commonwealth.

(3) In Queensland, as in other states, the great majority of the population lives in the towns, and indoor work is carried on in shops, offices, and warehouses, etc., entirely by white men. The state has a large number of frozen meat and canning works, and sugar mills, many of which are situated in the tropical area.

(4) The police officials who furnish returns in the outlying districts do their work very efficiently, and it is not possible that large numbers of deaths escape record. Probably only a very small number indeed escape registration.

The above figures represent data for the whole state of Queensland which is seen to be an average state of the Australian Commonwealth, and Mr. Huntington's objections cannot apply to the figures as given in our paper.

Since the paper appeared further statistical data have been taken out for Tropical Queensland by one of us (A. B.), and the results of this investigation are now in the press. A few points may be noted here.

In the coastal areas of Tropical Queensland where the bulk of the population resides, the proportion of males to females (census 1911) is 1.177 to 1; in the inland districts, chiefly mining and pastoral, the proportion is 1.672 to 1.

The average death rates are practically the same in the northern districts of Queensland as in the central and southern districts.

The birth rates are approximately the same in all the coastal districts of Queensland, northern, central, and southern; whilst the infantile mortality rate for the northern districts is lower than those for the central and southern districts.

This enquiry has shown that North Queensland, as far as vital statistics are concerned, does not differ essentially from the rest of the State and compares favorably with Victoria and Tasmania, the two most southern states of Australia.

Unfortunately data were not obtainable for taking out death rates for different ages.

It would be interesting to learn what was the authority upon which Mr. Huntington based his statements.

Yours faithfully,

A. BREINL

W. J. YOUNG

May 19, 1921.

To the Editor of the *Geographical Review*:

Please accept my thanks for your courtesy in sending me a copy of the letter of Messrs. Breinl and Young. I appreciate their earnestness and sincerity in trying to find out the exact truth regarding the adaptability of the white man to the tropics. Their difficulty is the same as that of everyone who studies the health of the tropics, namely, the absence of reliable statistics. Their own data illustrate this. For example, in 1911 the masculinity of Queensland as a whole, that is the number of males per 100 inhabitants, was only 52.1, or 109 males for 100 females; but in the fairly well populated coastal areas of the tropical part of Queensland the proportion of males to females was 118 to 100, while in the inland districts—chiefly mining and pastoral—the proportion was 167 to 100. In other words, in the tropical parts of Queensland the proportion of men is from 8 to 60 per cent greater than in the nontropical parts. But even in the nontropical parts the percentage of men from 20 to 40 years of age (18.08 as given by Breinl and Young) is 10.4 per cent greater than in the "standard" population of the United States in 1900, and 17.9 per cent greater than in England and Wales in 1901.

Among this large proportion of men in the prime of life the percentage who are shut up in the stuffy, dusty air of factories in big cities is certainly far smaller than in England or the northeastern United States; but as to this no data are forthcoming. Similarly, men who are sickly rarely go to tropical Australia. They fear the climate; and also they usually do not have the necessary energy or the capital; but we have no statistics on this point. Once more, almost all the adults in tropical Australia were not only born but grew to maturity in climates of a different type from that where they now live. Hence their health depends on the earlier environment as much, or more, than on that of their present homes. Moreover, unless the people in tropical Australia have less wisdom than most British colonists in hot countries, many go "South" or "Home" when their health begins to suffer, or while the children are young. Thus many deaths are deferred and perhaps credited to other places. In the absence of data on all these points, a mere comparison of crude death rates furnishes little evidence as to the effect of tropical Queensland upon permanent white settlement. I may have been wrong in thinking that many deaths fail to be recorded, for British police are efficient; but the statistics thus gathered are scarcely comparable to those of a settled, permanent, native-born population in a manufacturing country.

It seems to me that Messrs. Breinl and Young have attacked only half of their problem. On the basis of statistics whose inadequacy they are the first to recognize they conclude that there is no "evidence of lack of salubrity in tropical Australia." They have entirely omitted any consideration of the extent to which the statistics are influenced by the conditions mentioned above and by many others. What is needed is accurate statistics tabulated by age, by sex, by race, by place of nativity and childhood, and by climate. A beginning might be made by analyzing the deaths of native-born Queenslanders in the larger towns for a

period of 10 years before the war. This would involve a study of the original records, but it could be done. It would pay because it would give data that could scarcely be questioned.

My own method also leaves half the problem unsolved. I based my statements not on definite information as to Queensland, but on what is known of tropical lands in general, and also on our knowledge of the effect of specific climatic conditions at various seasons elsewhere. For example, the records of insurance companies show that in tropical countries the death rate among policy holders is extremely high. Yet the people who are insured are on the whole the most intelligent and careful of the people who go to the tropics. Again we know that when climatic conditions like those of tropical Australia prevail for a season in any part of our own country the death rate is high.

The point which this discussion emphasizes is the necessity for very accurate and almost meticulously minute statistics of mortality and disease for small geographical divisions and for long periods. The analysis of such statistics is a formidable task, but it is the only way to determine just what effects are produced by different climates and how those effects may be overcome. It is a mistake to attempt to "prove" anything about a climate. What we want is the facts. Knowing these, I believe that we can so regulate our lives that even in the tropics the white man can live and prosper. If we gloss over the unpleasant facts we thereby condemn to weakness and early death many whom the progress of science might otherwise make happy and long-lived.

Yours sincerely,

ELLSWORTH HUNTINGTON